SESSION XXX
COMPLIANCE THROUGH P^2 INITIATIVES

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AIMM to SCORE – Achieving Navy Environmental Excellence

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Background

While the term "pollution prevention" is relatively new (being officially defined in the Pollution Prevention Act of 1990), the concept of Federal agencies being sensitive to environmental issues is not. The passage of the National Environmental Policy Act (NEPA) in 1969 required agencies to consider environmental impacts resulting from their actions. The 1984 amendments to the Resource Conservation and Recovery Act, known as the Hazardous and Solid Waste Amendments or HSWA, began to define the concept of hazard reduction. HSWA initiated the requirement to document hazardous waste minimization efforts on hazardous waste manifests. This prompted all waste generating entities to consider what they were doing that could be changed to reduce waste production. This was the starting point of the first generation of pollution prevention (P2) in the Navy.

The first generation of Navy P2 reflected the belief that P2 was a good thing to do. Navy activities were encouraged to practice hazardous waste minimization (HAZMIN) to meet the HSWA requirements to and save money on hazardous waste disposal. Programmatically, the Navy focused on reduction in hazardous materials (HAZMAT) use through technology and reduction in disposal of unused HAZMAT through centralized HAZMAT management. In 1985, the Naval Energy and Environmental Support Activity and the Naval Civil Engineering Laboratory (now the Naval Facilities Engineering Service Center) began an effort to review hazardous waste generation records, determine major wastestreams, and research what could be done to reduce or eliminate these wastestreams. In 1986, the Navy developed a matrix of waste generating processes, potential reduction technologies and goals for waste reduction. Major waste streams identified included bilge water, paints, solvents, paint stripping waste, and plating/metal finishing wastes. Initial waste minimization efforts concentrated in these areas. This study also identified areas where no currently available commercial technologies existed and where research and development efforts were required.

The Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP) was created at Naval Air Station, Point Mugu, CA in the late 1980s. The program controls and tracks every aspect of the identification, receipt, issue and costs associated with all HAZMMAT including both new and reutilized HAZMAT. CHRIMP enables HAZMIN Centers to requisition and issue the right quantity of HAZMAT on a "just-in-time" basis, reissue partially used containers, and record the quantity of all HAZMAT by chemical present on an installation.

Based on the success of CHRIMP, the Naval Supply Systems Command was directed to implement it across the Navy, both afloat and ashore. Progress in the Navy HAZMIN program was evidenced by the better than 50% reduction in waste reported from 1987 to 1993.

The second generation of Navy P2 began in August 1993 when President Clinton signed Executive Order 12856 which directed federal agencies to comply with the provisions of the Pollution Prevention Act of 1990 and the Emergency Planning and Community Right to Know Act (EPCRA). Executive Order 12873, signed in October 1993, further committed federal agencies to P2 by setting requirements for cost effective waste prevention, recycling and procurement of environmentally preferable products. Taken together, these executive orders created "compliance requirements" which the Navy then set out to meet.

The P2 program Navy created to address the executive order requirements is reflected in its acronym, AIMM. AIMM stands for Assess, Implement, Manage and Measure. The program seeks to assess P2 opportunities through P2 planning and supported by tools such as the model P2 plans, P2 Planning Standard Operating Procedure, P2 Opportunities Handbook, Tri-Service P2 Technical Library, Navy Environmental Leadership Program, P2 Afloat Program and P2 Equipment Pre-production Demonstration/Evaluation. Based on sound evaluation, P2 opportunities are implemented through the annual Baseline Assessment process, P2 Equipment Program, and ODS Conversion Program. Materials and waste streams which cannot be reduced or eliminated, are carefully managed utilizing programs including Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP), the Hazardous Substances Management System (HSMS), the Navy Qualified Recycling Program (QRP), as well as regulatory permitting programs. Finally, progress is measured thorough reporting under the Emergency Planning and Community Right to Know Act and the DoD Measures of Merit. Efforts to integrate environment, safety and health (ESH) into Navy acquisition programs through initiatives such as the Joint Group on Acquisition Pollution Prevention (JGAPP) and establishment of ESH oriented Integrated Process Teams also support the AIMM philosophy.

The AIMM philosophy has served the Navy well. The DoD measures of merit show significant progress. From a CY94 baseline, we have reduced toxic releases by 51% as documented in our 1996 Toxic Release Inventory (TRI) reports. Navy hazardous waste disposal in 1997 was down 56% from the CY92 baseline. Solid waste disposal in 1997 was down 22% from the CY92 baseline and we diverted 36% of our 1997 solid waste stream to qualified recycling programs or composting efforts. The challenge faced by the Navy P2 program was how to take the AIMM philosophy, and utilize it to support our overall environmental quality program. The next step was to move to a third generation of P2 that is focused on moving the Navy forward.

Third Generation Navy Pollution Prevention

At the May 1997 Navy Pollution Prevention (P2) conference, there was significant discussion on the direction the Navy P2 community needed to go to meet future requirements. As a starting point, CNO(N45) laid out a vision for the program with some long and short-term goals and objectives. That vision reads:

"Support operational readiness by achieving cost effective full and sustained compliance and enhanced personnel safety through innovative, aggressive use of pollution prevention."

This vision has been very well received by Navy's P2 community. Over the past year, the CNO Pollution Prevention Branch, CNO(N451), has worked to focus the Navy P2 program to accomplish the accompanying goals and objectives. The results are the development of an overall environmental quality philosophy known as "AIMM to SCORE" and the Navy Environmental Quality Initiative (EQI) which is intended to focus the P2 program on supporting sustain compliance at lowest life cycle cost.

AIMM to SCORE

It has become very clear that it is counterproductive to view P2 and compliance as separate, often competing, pillars of the environmental program. A more useful approach is to view P2 as a tool to support sustained compliance at the lowest life cycle cost. Compliance is an end state. P2 is a means to that end. The net result is improved environmental quality.

Working together, CNO Environmental Compliance and P2 staff developed a philosophy for a Navy Environmental Quality (EQ) Program. We quickly agreed that what we were striving for could be summed up as "Navy Environmental Excellence". In trying to define what that means, we determined that there are two fundamental elements required. First, we must support the operational readiness of the United States Navy to perform its national security mission. Second, we must achieve and maintain sustained compliance. Both elements must be present. Operational readiness without sustained compliance cannot be maintained for long. Sustained compliance without operational readiness is not excellence for the United States Navy. Being good Navy employees, we immediately turned this vision into an acronym:

SUSTAINED COMPLIANCE + OPERATIONAL READINESS =
ENVIRONMENTAL EXCELLENCE (SCORE)

Our challenge is to use the outstanding success we have achieved to date with the AIMM program to SCORE big for the Navy. One of the tools we will use is the Navy Environmental Quality Initiative.

Navy's Environmental Quality Initiative

A key element in implementing the AIMM to SCORE philosophy is the Navy's Environmental Quality Initiative (EQI). The Navy EQI is a comprehensive initiative focused on maximizing the use of pollution prevention to achieve and maintain environmental compliance. The goal is "Sustained Compliance at Lowest Life Cycle Cost". Navy's EQI has four primary objectives:

1. Reduce the Life Cycle Cost of Navy's Environmental Quality Program

2. Achieve Sustained Environmental Compliance at Navy Activities
3. Reduce Generation of Pollutants at Navy Activities
4. Increase Use of P2 Alternatives to Environmental Compliance Requirements

In order to make AIMM to SCORE a reality, we need to think differently about the P2 program and how it supports Navy's national security mission. The primary legal drivers for the P2 program, Executive Orders 12856 and 12873, require federal agencies to do P2 planning, practice source reduction, increase recycling, implement cost effective waste reduction and make good life cycle cost decisions. Current Navy P2 planning is focused on meeting these requirements. In many cases actions to comply with the executive orders support compliance with statutory and regulatory requirements, but such compliance has not been a major program driver. There appears to be little or no meaningful interaction between P2 and compliance personnel at many Navy activities. In the short term, the EQI will help us to focus on supporting statutory and regulatory compliance. In the longer term, the EQI will support a transition from P2 planning to more comprehensive environmental quality planning with the focus on lowest life cycle cost, sustainable compliance. In order for EQI to succeed, compliance and P2 personnel must work together as an integrated unit with a common goal.

During the May 1997 Navy P2 Conference, there was an excellent discussion on activity P2 plans. Some activities were using them as an integral part of their day to day operations, and others have put their plan on the shelf. Some activities view the plans as essential tools to support their environmental programs, have shared the plans with their compliance and maintenance counterparts, and have implemented numerous successful opportunities. Other activities viewed completion of the plan as compliance with a CNO directive. These activities do not use the plans as tools to support their environmental programs, have not shared the plan with anyone outside the activity P2 program and have met with little success in the implementation of opportunities. The majority of activities seem to fall somewhere in between.

We are concerned about investing scarce Navy resources in additional extensive (and expensive) plans that may not be any more effectively utilized that some of the current activity P2 plans. We want, however, to move forward with environmental quality planning at Navy activities. Environmental quality planning should not be an onerous requirement from CNO that has to be completed before getting on with the real work. Our challenge is to enlist everyone in the Navy to use P2 in environmental quality planning for effective, efficient mission accomplishment.

Rather than jumping directly into activity environmental quality plans, the EQI supports a series of interim steps to gradually transition from P2 plans to more comprehensive environmental quality plans. We intend to make the best possible use of the significant assets we already have such as the activity P2 plans, the PPEP, and the P2 Technical Library to support our vision. For subsequent P2 plan updates, we will encourage and work to support activity efforts to broaden their plan's focus to integrate sustained compliance through source reduction, reduced toxic releases, and minimum life cycle cost. The Naval Facilities Engineering Service Center (NFESC) has begun work to assist in this phase of the EQI by gathering and reviewing all of the current activity P2 plans. NFESC is developing lessons learned and documenting implemented

successes from review of these plans. This information will be provided to Navy major claimants and activities to support activity plan updates.

NFESC has also been tasked to identify specific P2 for Compliance opportunities and package them for distribution throughout the Navy. General implementation practices that help target specific compliance requirements and identified P2 alternatives are being developed. Opportunities common to particular types of activities or operations will be identified and support information will be targeted to that audience. The goal for this effort is to highlight alternatives that support multiple compliance requirements, source reduction and health/safety enhancement.

FY98, FY99 and FY00 Baseline Assessment Data is being reviewed by NFESC to identify and prioritize compliance requirements for which P2 solutions will reduce the life cycle cost of compliance. Beginning with Program Review 2001(PR01), guidance on using P2 to support compliance will be inserted into the compliance sections of the Navy Environmental Requirements Cookbook to increase visibility and ensure P2 alternatives are considered and incorporated up front. For POM 00, we plan to insert specific P2 for compliance line items into the cookbook. This will improve and support the ability of Navy activities to identify and fund P2 alternatives to compliance requirements.

Another significant element of the EQI is the Navy's new Environmental Quality Assessment (EQA), a revamped Environmental Compliance Evaluation. The EQA has a goal of continuous improvement at the command level by providing continuous auditing and feedback. This is achieved with an Internal Assessment Plan that provides for data collection, evaluation of compliance posture, root cause analysis, management review, and identification of pollution prevention opportunities on an ongoing basis. With this feedback loop, P2 becomes everyone's business.

Over the long term, our goal is to institutionalize integrated environmental quality planning. This will support operational readiness by targeting source reduction efforts to reduce current and future regulatory impacts on Navy operations, and their associated cost to the fleet. The net result will be sustained compliance at the lowest life cycle cost. That is the target for which we hope the entire Navy will AIMM to SCORE.